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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,988	02/04/2002	Tony Gioutsos	60,256-044	4219

7590 01/14/2004

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EXAMINER

GOINS, DAVETTA WOODS

ART UNIT	PAPER NUMBER
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2632

DATE MAILED: 01/14/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,988

Applicant(s)

GIOUTSOS ET AL.

Examiner

Davetta W. Goins

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 20-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4,7. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frigo (US Pat. 4,191,944) in view of Kwun (US Pat. 5,767,766).

In reference to claims 1-4, 11, 20-25, 27-29, Frigo discloses the claimed ⁽¹⁾activation surface, a ⁽²⁾ferromagnetic sensor, and a ⁽³⁾horn switch activated upon a magnetic sensor, which is met by sound generator (horn) comprising a housing 1 and membrane 4 underlain by a ferromagnetic disk 6, separating it from an enlarged head 5 or a magnetic armature 7. A magnetic circuit includes a stationary core 8 of coil 11 supported by a coil carrier 10 at the end of housing 1 remote from membrane 4 (col. 3, lines 1-56). Although Frigo does not specifically disclose the claimed magnetostrictive sensor, he does disclose a magnetic circuit including an armature 7 used to energize the circuit of coil 11 (col. 3, lines 24-56). Kwun discloses an impact sensing system for a vehicle incorporating magnetostrictive sensors that are well known in the art for detecting magnetic field fluctuations brought about by magnetostrictive effect along with ferromagnetic structure (col. 4, lines 35-65). Since Frigo discloses an electromagnetic sound generating horn comprising a ferromagnetic disk and magnetic armature used to create a magnetic field, it would have been obvious to one of ordinary skill in the art at the time of the

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invention to use magnetostrictive sensors within the horn to detect the pressure applied by the horn to provide a signal upon sensing impact of the driver's hand upon the steering wheel.

In reference to claim 5-10, 26, although Frigo does not specifically disclose the claimed steering wheel including the ferromagnetic element, he does disclose a sound generator comprising a housing 1, such as the automobile's horn, including the ferromagnetic disk 6 (abstract, col. 2, lines 65-68; col. 3, lines 1-23). Since Frigo's system is used to operate the horn of the automobile, it would have been obvious to one of ordinary skill in the art at the time of the invention to place the ferromagnetic element within the steering wheel, which is normally used, in applying pressure thereto in order to operate the horn.

3. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure as follows. Zimmermann (US Pat. 5,894,264) and Farrington (US Pat. 6,329,910 B1), which disclose devices that detect pressure by use of ferromagnetic elements and magnetostrictive sensors.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is 703-306-2761. The examiner can normally be reached on Mon-Fri with every other Fri. off.

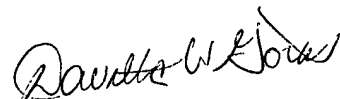
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 703-308-6730. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-7666.



D.W.G.

January 9, 2004

Davetta W. Goins

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